**CLAIMS**

1. An accelerometer micromachined in a plane plate comprising a base, and at least one measurement cell including a moveable seismic mass (1) connected to the base and capable of moving translationally along the sensitive Oy axis of the accelerometer under the effect of an acceleration $\gamma$ along this Oy axis, a resonator cell comprising a resonator (30) that can vibrate and be subjected to a tensile or compressive force depending on the direction of acceleration $\gamma$ and is placed symmetrically with respect to an axis of symmetry S of the structure, this axis S being parallel to the Oy axis and passing through the center of gravity of the seismic mass (1), the measurement cell furthermore including amplification means (2) for amplifying the acceleration force that generates the translation, which means comprise at least one anchoring foot (7) for anchoring to the base, two rigid terminations (4) of the resonator cell and two pairs of micromachined arms (5, 6), the pairs being symmetrical with respect to the axis S, each pair comprising a first arm (5) connecting a first point of attachment (A) to a termination (4) and a second point of attachment (B) to the seismic mass (1), and a second arm (6) connecting a third point of attachment to the same termination (4) and a fourth point of attachment to the anchoring foot (7), the angle $\alpha$ between the Ox axis perpendicular to the Oy axis and the line joining the first and second points of attachment (A, B) being symmetrical with respect to the axis connecting the terminations (4) via their mid-point, of the angle between the Ox axis and the line joining the third and fourth points of attachment and sufficiently small for the tensile or compressive force exerted on the resonator (30) to be greater than the acceleration force exerted on the seismic mass (1), characterized in that the resonator cell comprises two rigid embedding elements (40) for embedding the ends of the resonator

(30) and two pairs of secondary micromachined arms (50, 60), these pairs being symmetrical with respect to the axis S, each pair comprising a first secondary arm (50) connecting a first point of attachment (D) to an embedding element (40) and a second point of attachment (C) to a termination (4) of the cell, and a second secondary arm (60) connecting a third point of attachment to the other embedding element (40) and a fourth point of attachment to the same termination (4) of the cell, the angle $\beta$ between the Oy axis and the line joining the first and second points of attachment (D, C) being symmetrical with respect to the axis passing through the mid-points of the embedding elements (40), of the angle between the Oy axis and the line joining the third and fourth points of attachment and low enough for the tensile or compressive force exerted on the resonator (30) to be greater than the acceleration force exerted on the seismic mass (1).

2. The accelerometer as claimed in the preceding claim, characterized in that the pairs of arms (50, 60) are straight or curved.

3. The accelerometer as claimed in either of the preceding claims, characterized in that the first point of attachment (A) of the first arm (5) is located further away from the axis of symmetry S than its second point of attachment (B).

4. The accelerometer as claimed in either of claims 1 and 2, characterized in that the first point of attachment (A) of the first arm (5) is located closer to the axis of symmetry S than its second point of attachment (B).

5. The accelerometer as claimed in any one of the preceding claims, characterized in that the pairs of arms (5, 6) are straight or curved.

6. The accelerometer as claimed in any one of the preceding claims, characterized in that the seismic mass (1) surrounds the amplification means (2).

7. The accelerometer as claimed in any one of the preceding claims, characterized in that the first and second arms (5, 6) have a thickness that can vary along their length.

8. The accelerometer as claimed in any one of the preceding claims, characterized in that it furthermore includes guiding arms (8) for guiding the seismic mass (1), which arms lie along the Ox axis and are connected to a part (9) fixed to the base.

9. The accelerometer as claimed in any one of the preceding claims, characterized in that it comprises two measurement cells (10, 10') placed with respect to each other in such a way that, under the effect of an acceleration, the resonator of one measurement cell (10) undergoes a tensile force while the resonator of the other measurement cell (10') undergoes a compressive force.

10. The accelerometer as claimed in the preceding claim, characterized in that the two measurement cells (10, 10') have a common seismic mass.

11. The accelerometer as claimed in either of claims 9 and 10, characterized in that the arms (5, 6, 5', 6') are placed in the same way for each of the measurement cells (10, 10').

12. The accelerometer as claimed in either of claims 9 and 10, characterized in that the arms (5, 6, 5', 6') are not placed in the same way for each of the measurement cells (10, 10').

13. The accelerometer as claimed in any one of the

preceding claims, characterized in that the resonator (30) comprises a vibrating beam, or two vibrating beams forming a tuning fork, or at least three vibrating beams or a torsion bar.